# CLAIMS

What is claimed is:

1. An apparatus comprising:

a buffer to store at least a default stream coded by a multiple description (MD) coding and a restart stream coded by a predictive coding, the default and restart streams corresponding to a media content;

a selector coupled to the buffer to select a transmit frame from the default and restart streams according to a transmission status, the transmit frame being transmitted to a receiver; and

an analyzer coupled to the selector to provide the transmission status based on feedback information provided by the receiver.

2. The apparatus of claim 1 wherein the transmission status is one of a normal condition and a restart condition, the restart condition indicating that there is a frame loss in a description stream of the default stream and that it is time to transmit a frame from the description stream having the frame loss.

3. The apparatus of claim 2 wherein the selector selects the transmit frame from the restart stream when the transmission status is the restart condition.

4. The apparatus of claim 3 wherein the selector selects the default stream after the transmit frame is transmitted.

5. The apparatus of claim 1 wherein the default stream includes a plurality of description streams that are independently encoded.

6. The apparatus of claim 1 wherein the analyzer comprises:

a delay tracker to track delay characteristics of a transmission path; and

a probe tracker to keep track of probing packet to be sent over a transmission path to provide path statistics.

7. The apparatus of claim 6 further comprising:

an input/output (I/O) module coupled to the selector to transmit the default stream or the restart stream and the probing packets over a transmission path according to the delay characteristics or the path statistics.

8. An apparatus comprising:

an input/output (I/O) module to receive a stream having a frame from a transmitter over a transmission path, the frame being selected from one of a default stream coded by a multiple description (MD) coding and a restart stream coded by a predictive coding, the default and restart streams corresponding to a media content;

a feedback generator coupled to the receiver to provide feedback information regarding transmission of the stream to the transmitter; and

a decoder coupled to the receiver to decode the stream.

9. The apparatus of claim 8 wherein the decoder comprises:

an error concealer to conceal error caused by packet loss.

10. The apparatus of claim 8 wherein the I/O module sends an acknowledgment over the transmission path when the stream is received.

11. A method comprising:

storing at least a default stream coded by a multiple description (MD) coding and a restart stream coded by a predictive coding in a buffer, the default and restart streams corresponding to a media content;

selecting a transmit frame from the default and restart streams according to a transmission status, the transmit frame being transmitted to a receiver; and

providing the transmission status by an analyzer based on feedback information provided by the receiver.

12. The method of claim 11 wherein the transmission status is one of a normal condition and a restart condition, the restart condition indicating that there is a frame loss in a description stream of the default stream and it is time to transmit a frame from the description stream having the frame loss.

13. The method of claim 12 wherein selecting comprises selecting the transmit frame from the restart stream when the transmission status is the restart condition.

14. The method of claim 13 wherein selecting comprises selecting the default stream after the transmit frame is transmitted.

15. The method of claim 11 wherein the default stream includes a plurality of description streams that are independently encoded.

16. The method of claim 11 wherein the providing comprises:
tracking delay characteristics of a transmission path; and
keeping track of probing packet to be sent over a transmission path to provide path statistics.

17. The method of claim 16 further comprising:
transmitting the default stream or the restart stream and the probing packets over a transmission path according to the delay characteristics or the path statistics.

18. A method comprising:
receiving a stream having a frame from a transmitter over a transmission path, the frame being selected from one of a default stream coded by a multiple description (MD) coding and a restart stream coded by a predictive coding, the default and restart streams corresponding to a media content;
providing feedback information regarding transmission of the stream to the transmitter; and
decoding the stream.

19. The method of claim 18 wherein the decoding comprises:
concealing error caused by packet loss.

20. The method of claim 18 wherein receiving the stream comprises sending an acknowledgment over the transmission path when the stream is received.

21. An article of manufacture comprising:

a machine-accessible medium including data that, when accessed by a machine, causes the machine to perform operations comprising:

storing at least a default stream coded by a multiple description (MD) coding and a restart stream coded by a predictive coding in a buffer, the default and restart streams corresponding to a media content;

selecting a transmit frame from the default and restart streams according to a transmission status, the transmit frame being transmitted to a receiver; and

providing the transmission status by an analyzer based on feedback information provided by the receiver.

22. The article of manufacture of claim 21 wherein the transmission status is one of a normal condition and a restart condition, the restart condition indicating that there is a frame loss in a description stream of the default stream and that it is time to transmit a frame from the description stream having the frame loss.

23. The article of manufacture of claim 22 wherein the data causing the machine to perform selecting comprises data that cause the machine to perform operations comprising selecting the restart stream when the transmission status is the restart condition.

24. The article of manufacture of claim 23 wherein the data causing the machine to perform selecting comprises data that cause the machine to perform operations comprising selecting the default stream after the restart stream is transmitted.

25. The article of manufacture of claim 21 wherein the default stream includes a plurality of description streams that are independently encoded.

26. The article of manufacture of claim 21 wherein the data causing the machine to perform providing the transmission status comprises data that cause the machine to perform operations comprising:

tracking delay characteristics of a transmission path; and

keeping track of probing packet to be sent over a transmission path to provide path statistics.

27. The article of manufacture of claim 26 wherein the data causing the machine to perform providing the transmission status further comprises data that cause the machine to perform operations comprising:

transmitting the default stream or the restart stream and the probing packets over a transmission path according to the delay characteristics or the path statistics.

28. An article of manufacture comprising:

a machine-accessible medium including data that, when accessed by a machine, causes the machine to perform operations comprising:

receiving a stream having a frame from a transmitter over a transmission path, the frame being selected from one of a default stream coded by a multiple description (MD) coding and a restart stream coded by a predictive coding, the default and restart streams corresponding to a media content;

providing feedback information regarding transmission of the stream to the transmitter; and

decoding the stream.

29. The article of manufacture of claim 28 wherein the data causing the machine to perform decoding comprises data that cause the machine to perform operations comprising:

concealing error caused by packet loss.

30. The article of manufacture of claim 28 wherein the data causing the machine to perform receiving the stream comprises data that cause the machine to perform operations comprising sending an acknowledgment over the transmission path when the stream is received.

31. An apparatus comprising:

means for storing at least a default stream coded by a multiple description (MD) coding and a restart stream coded by a predictive coding, the default and restart streams corresponding to a media content;

means for selecting a transmit frame from the default and restart streams according to a transmission status, the transmit frame being transmitted to a receiver; and

means for providing the transmission status based on feedback information provided by the receiver.

32. The apparatus of claim 31 wherein the transmission status is one of a normal condition and a restart condition, the restart condition indicating that there is a frame loss in a description stream of the default stream and that it is time to transmit a frame from the description stream having the frame loss.

33. The apparatus of claim 32 wherein the means for selecting selects the transmit frame from the restart stream when the transmission status is the restart condition.

34. The apparatus of claim 33 wherein the means for selecting selects the default stream after the transmit frame is transmitted.

35. An apparatus comprising:

means for receiving a stream having a frame from a transmitter over a transmission path, the frame being selected from one of a default stream coded by a multiple description (MD) coding and a restart stream coded by a predictive coding, the default and restart streams corresponding to a media content;

means for providing feedback information regarding transmission of the stream to the transmitter; and

means for decoding the stream.

36. The apparatus of claim 35 wherein the means for decoding comprises:

means for concealing error caused by packet loss.